

## RANDOM NOTES ON NORTH AMERICAN ORTHOPTERA.

BY JAMES A. G. REHN.

The following notes have been collected while studying material in the collection of the Academy of Natural Sciences of Philadelphia, and in the private collection of the writer. Many of these notes, while not new records, refer to species apparently scarce in collections and concerning which information is desirable.

### BLATTIDÆ.

**Homœogamia bolliana** Saussure.

1893, *Homœogamia bolliana* Saussure, *Revue Suisse Zool.*, i, p. 297.

Three ♂; Round Mountain, Texas. Collection of the Academy.

### MANTIDÆ.

**Stagnomantis carolina** (Johansson).

1763, *Gryllus carolinus* Johansson, *Amœnit. Acad.*, vi, p. 396.

Two ♂; Pennsylvania. Collection of the Academy. Apparently the first Pennsylvania records. 

### PHASMIDÆ.

**Diapheromera denticrus** Stal.

1875, *Diapheromera denticrus* Stal, *Recensio Orthopt.*, iii, p. 76.

One ♀; Texas. One ♂, ♀; Helotes, Texas; collected by G. W. Marnock. Collection of the Academy (Cope coll.). One specimen, the female from Helotes, exceeds the maximum length given by Mr. Scudder (*Psyche*, ix, p. 188) by 25 mm. (total length 150 mm.).

### ACRIDIDÆ.

**Rhadinotatum brevipenne** (Thomas).

1873, *Tryxalis brevipennis* Thomas, *Rep. U. S. Geol. Surv. Terr.*, v, p. 58.

One ♂; Miami, Dade Co., Florida, 1-12, 1899.

Two ♀; " " " 1-23, 1899, and 2-4, 1899.

Collected by S. N. and M. C. Rhoads. Collection of J. A. G. Rehn.

**Syrbula admirabilis** (Uhler).

1864, *Stenobothrus admirabilis* Uhler, *Proc. Ent. Soc. Phila.*, ii, p. 553.

One ♂, Atsion, Burlington Co., New Jersey; collected by J. A.

G. Rehn. Author's collection. Only previous known record from New Jersey, Cape May (Smith, *Insects of New Jersey*, 1899, p. 154).

**Eritettix carinatus** (Scudder).

1875, *Gomphocerus carinatus* Scudder, *Proc. Bost. Soc. Nat. Hist.*, xvii, p. 511.

One ♀; Ashbourne, Montgomery Co., Penna.; collected by J. A. G. Rehn. One ♀; Washington, D. C.; collected by Dr. Nathan Banks, June 30, 1897; August 31, 1900. One immature specimen; Rosslyn, Alexandria, Va.; collected by J. A. G. Rehn, October 22, 1900. Collection of J. A. G. Rehn.

**Eretettix simplex** (Scudder).

1869, *Gomphocerus simplex* Scudder, *Proc. Amer. Ent. Soc.*, ii, p. 305.

One ♂; Delaware. Type. Collection of the Academy.

An examination of the type of this species shows that McNeill placed it in the wrong section of his generic key (*Proc. Davenport Acad.*, vi, p. 218), the species falling under B<sup>1</sup> instead of B<sup>2</sup>, the supplementary carinae being as apparent and strongly marked as the lateral carinae.

**Hippiscus griseus** Scudder.

1892, *Hippiscus griseus* Scudder, *Psyche*, vi, p. 274, 362.

One ♀; City Creek Canon, Utah; collected by Dr. Henry Skinner, July 4, 1899. Collection of the Academy.

This specimen is interesting in having the tibiae and the interior and lower surface of the posterior femora sanguineous.

**Spharagemon collare wyomingianum** (Thomas).

1872, *Edipoda wyomingiana* Thomas, *Prelim. Rep. U. S. Geol. Surv. Mont.*, p. 462.

Two ♂, one ♀; Atsion, Burlington Co., New Jersey; collected by J. A. G. Rehn, September 2, 1991. Collection of J. A. G. Rehn.

**Sparagemon saxatile** Morse.

1894, *Spharagemon saxatile* Morse, *Proc. Bost. Soc. Nat. Hist.*, xxvi, p. 229.

Two ♂; Ricketts, Wyoming Co., Penna.; collected by Stewardson Brown, September, 1900. Collection of J. A. G. Rehn.

This is apparently the first Pennsylvania record for this species, the specimens agree very well with cotypes in the collection of the Academy.

**Trimerotropis ceruleipennis** Bruner.

1885, *Trimerotropis ceruleipennis* Bruner, *Canan. Ent.*, xvii, p. 10.

One ♂; Silver Lake, Utah; collected by Dr. Henry Skinner, July 14, 1899. Collection of the Academy.

This specimen has the hind tibiae more glaucous than blue.

**Trimerotropis cristata** McNeill.

1901, *Trimerotropis cristata* McNeill, Proc. U. S. Nat. Mus., xxiii, p. 408.

One ♀; San Diego, San Diego Co., Cal.; collected by G. W. Dunn, May 3, 1899. Collection of J. A. G. Rehn.

Previously known from San Julio, Lower California and Salt Lake Valley, Utah.

**Trimerotropis ferruginea** McNeill?

1901, *Trimerotropis ferruginea* McNeill, Proc. U. S. Nat. Mus., xxiii, p. 420.

Two ♂, four ♀; San Diego Co., Cal.; collected by G. W. Dunn, 1900. Cuyamaca, San Diego Co., Cal.; Dunn, October 1, 1900. Collection of J. A. G. Rehn.

These specimens are rather questionably assigned to this species. McNeill's most southern locality was American Fork Canyon, Utah.

**Trimerotropis strenua** McNeill.

1901, *Trimerotropis strenua* McNeill, Proc. U. S. Nat. Mus., xxiii, p. 432.

One ♀; Salt Lake City, Utah. July 15, 1897. Collection of the Academy.

This specimen agrees exactly with McNeill's description, except for the obtuse-angulate metazone, in this agreeing with *T. montana*, but as McNeill states these "may be but varieties of an exceedingly variable species."

**Trimerotropis tesellata** McNeill.

1901, *Trimerotropis tesellata* McNeill, Proc. U. S. Nat. Mus., xxiii, p. 417.

One ♂; Cuyamaca, San Diego Co., Cal.; collected by G. W. Dunn, October 1, 1900. Collection of J. A. G. Rehn.

This specimen agrees very well with this species, formerly known only from Turkey Tanks, Arizona.

**Trimerotropis vinculata** Scudder.

1876, *Trimerotropis vinculata* Scud., Proc. Bost. Soc. Nat. Hist., xviii, p. 270.

Four ♂, seven ♀; San Diego Co., Cal.; collected by G. W. Dunn, December 9, 1900. Collection of J. A. G. Rehn.

These specimens show considerable difference in tint and intensity of coloration, but all seem to be referable to this well known form.

The treatment of restricted *Trimerotropis* by McNeill in his re

cent paper on the genus (Proc. U. S. Nat. Mus., xxiii, p. 398-399) is quite inexplicable. Stal (Recensio Orthopt., i, pp. 134-135) founded the genus on *maritima* and *placida*, the latter regarded by McNeill (p. 411) as a synonym of *ochraceipennis* Blanchard. The reviser of the genus placed these two species in a new subgenus *Agonozoa*, and uses *Trimerotropis* s. s. for another subgenus. As is quite apparent *Agonozoa* is a synonym of restricted *Trimerotropis*, and a new name is necessary for McNeill's subgenus *Trimerotropis*. To supply the deficiency I propose *Pseudotrimerotropis*.

**Circotettix verruculatus** (Kirby).

1837, *Locusta verruculata* Kirby, Fauna Bor.-Amer., iv, p. 250.

Two ♂, one ♀; Ricketts, Wyoming Co., Pa.; collected by Stewardson Brown, September 1, 1900. Two ♀; Bellasylva, Wyoming Co., Penna.; collected by Otto Behr, August, 1900. One ♀; North Mountain (Ganoga Lake), Sullivan Co., Pa.; collected by C. W. Johnson.

The above mentioned specimens, in the collection of the writer, are the first published records of this specimens from Pennsylvania. The southern boundary of the Transition (Alleghanian) fauna probably constitutes the limit of this species.

**Heliastus californicus** (Thomas).

1875, *Thrinxus californicus* Thomas, Bull. U. S. Geol. Surv. Terr., i, No. ser. 1, p. 66.

One ♂, three ♀; San Diego, Cal., and San Diego Co., Cal.; collected by G. W. Dunn, March 21, 1900. Collection of J. A. G. Rehn.

**Schistocerca alutacea** (Harris).

1841, *Acridium alutaceum* Harris, Treat. Inj. Ins., p. 139.

One ♂, two ♂; Cuyamaca, San Diego Co., Cal., September 29, 1900; San Diego Co., Cal., 1900; collected by G. W. Dunn. Collection of J. A. G. Rehn.

**Schistocerca damnifica** (Saussure).

1861, *Acridium damnificum* Saussure, Revue et Magas. de Zool., 2e ser., xiii, p. 164.

One ♂; Miami, Dade Co., Fla.; collected by S. N. and M. C. Rhoads, January 21, 1899. Collection of J. A. G. Rehn. Only one previous record from southern Florida is published, a specimen having been taken at Key West.

**Melanoplus affinis** Scudder.

1897, *Melanoplus affinis* Scudder, Proc. Amer. Philos. Soc., xxxvi, p. 20, 32.

Four ♂, three ♀; Cuyamaca, San Diego Co., Cal.; collected by G. W. Dunn, October 1, 1900. Collection of J. A. G. Rehn.

**Melanoplus fasciatus** (Walker).

1870, *Caloptenus fasciatus* Walker, Cat. Derm. Salt. Brit. Mus., iv, p. 680.

One ♂; Ganoga Lake, Sullivan Co., Pa.; collected by Stewardson Brown, September 2, 1900. Collection of J. A. G. Rehn.

This specimen is apparently the first Pennsylvania record, and belongs to typical *fasciatus* (*f. fasciatus* = *f. curtus* Scudder). From present known records it appears quite evident that this species inhabits the Alleghanian (Transition), Canadian and Hudsonian zones. The record from cranberry bogs at Jamesburg, N. J. (Smith, Ins. N. J., 1899, p. 156), is accounted for by the fact that such bogs have a very decidedly Alleghanian element in them.

**Melanoplus punctulatus** (Scudder).

1862, *Caloptenus punctulatus* Scudder, Bost. Journ. Nat. Hist., vii, p. 465.

One ♀; near Philadelphia, Pa.; collected by S. F. Aaron, September 2. Collection of the Academy.

This species has been recorded from surrounding States, but never before from Pennsylvania.

**Paroxya floridiana** (Thomas).

1874, *Caloptenus floridians* Thomas, Bull. U. S. Geol. and Geogr. Surv. Terr., i, No. 2, p. 68.

One ♀; Miami, Fla.; collected by S. N. and M. C. Rhoads, January 23, 1899. Collection of J. A. G. Rehn.

**Aptenopedes aptera** Scudder.

1877, *Aptenopedes aptera* Scudder, Proc. Bost. Soc. Nat. Hist., xix, p. 86.

One ♂; Miami, Dade Co., Fla.; collected by S. N. and A. C. Rhoads, January 17, 1899. Collection of J. A. G. Rehn.

## TETTIGONIDÆ.

**Dichopetala emarginata** Brunner.

1878, *Dichopetala emarginata* Brunner, Monogr. d. Phaneropt., p. 77.

One ♀; Texas. Collection of the Academy

This specimen, while structurally agreeing very well with Brunner's description (except for the larger size of the hind femora—26 mm.), shows some departure in coloration. No median white line is

visible, the lateral lines on the head and pronotum are well marked, and the deeper markings of the abdomen are black instead of reddish fuscous.

***Stenopelmatus californicus* Brunner.**

1888, *Stenopelmatus californicus* Brunner, Verh. Zool.-bot. Gesellsch. Wien, xxxviii, p. 261.

One specimen; Pasadena, Cal.; collected by H. N. Rust. Collection of the Academy (Cope Coll.).

***Stenopelmatus fasciatus* Thomas.**

1875, *Stenopelmatus fasciatus* Thomas, Prelim. Rep. U. S. Geol. Surv. Mont., p. 434.

Two specimens; Salt Lake City, Utah. Collection of the Academy.

In the original description of this species Thomas mentioned specimens from Utah, but none have since been obtained, with the exception of the specimens here recorded.

***Stenopelmatus histrio* Saussure.**

1859, *Stenopelmatus histrio* Saus., Revue et Magas. de Zool., 2e ser., xi, p. 210.

Two specimens; San Francisco, Cal.; collected by L. E. Ricksecker. Collection of the Academy (Cope Coll.).

***Stenopelmatus longispina* Brunner.**

1888, *Stenopelmatus longispina* Brunner, Verh. Zool.-bot. Gesellsch. Wien, xxxviii, p. 260.

One specimen; Texas. Collection of the Academy.

The occurrence of this species in Texas was quite unexpected, but the specimen falls quite naturally into Brunner's species.

***Stenopelmatus pictus* Scudder.**

1899, *Stenopelmatus pictus* Scudder, Canad. Ent., xxxi, pp. 114, 116.

One specimen; San Francisco, Cal.; collected by L. E. Ricksecker. Collection of the Academy (Cope Coll.).

This specimen is topotypic, as Scudder's types came from the same locality.

The character used by Scudder (Canad. Ent., xxxi, p. 144) to separate the genus *Stenopelmatus* into two sections is apparently very unreliable. The spines on the internal margin of the posterior tibiae in the specimens before me (twenty-three in number) present many discrepancies from Scudder's key. In some specimens the number on opposite limbs are not the same, and in a few cases the spines are almost invisible, though the specimens can, by all other characters, be referred to a species normally possessing prominent spines.

**Hadenœus cavernarum** (Saussure).

1860, *Rhaphidophora cavernarum* Saussure, Ann. Soc. Ent. Fr. (4), i, p. 492.

A male specimen of this species from Mammoth Cave, Kentucky, differs from another male from the same locality, and approaches *H. puteanus* in having the subgenital plate rather narrowly emarginate at the apex.

**Diahinia brevipes** Haldeman.

1850, *Phalangopsis (Diahinia) brevipes* Haldeman, Proc. Amer. Asso. Adv. Sci., ii, p. 346.

One ♂, two ♀; North Dakota. Collection of the Academy.

These specimens extend the range of the species, no specimens having been previously recorded north of South Dakota. Nine specimens of this species examined by the writer, all agree in having the third tarsal joint of the fore and hind legs absent as noticed by Scudder (Proc. Amer. Acad. Arts Sci., xxx, p. 108) in a series of fourteen.

## GRYLLIDÆ.

**Ceanthus pini** Beutenmüller.

1894, *Ceanthus pini* Beutenmüller, Journ. N. Y. Ent. Soc., ii, p. 56.

Four specimens, one ♂, two ♀, one immature; Chestertown, Kent Co., Md.; collected by E. G. Vanatta, August 17, 23 and 27, 1899. Collection of the Academy.

The most southern point from which this species has been previously recorded is Riverton, Burlington County, New Jersey (vide Smith, Insects N. J., 1899, p. 165).

**Ceanthus quadrimaculatus** Beutenmüller.

1894, *Ceanthus quadrimaculatus* Beutenmüller, Bull. Amer. Mus. Nat. Hist., vi, pp. 250, 271.

One ♂; Chestertown, Kent County, Md.; collected by E. G. Vanatta, August 23, 1899. Collection of the Academy. The remarks made under the preceding species also apply to this form.

**Anaxipha exigua** (Say).

1825, *Acheta exigua* Say, Journ. Acad. Nat. Sci. Phila., iv, p. 309.

Five specimens, two ♂, one ♀, two immature; Delaware and Pennsylvania. Collection of the Academy.

**Phylloscirtus pulchellus** (Uhler).

1864, *Phyllopalpus pulchellus* Uhler, Proc. Ent. Soc. Phila., ii, p. 544.

Nine specimens, two ♂, seven ♀; Maryland, Delaware and Pennsylvania. Chestertown, Kent Co., Md.; collected by E. G. Vanatta, Aug. 17, 22, 25, 26, 29, 1899. Collection of the Academy.